



# **U.S. Environmental Protection Agency** **WATER CONSERVATION PLAN** **GUIDELINES**

August 6, 1998

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## EXECUTIVE SUMMARY

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The Safe Drinking Water Act (SDWA, 42 U.S.C. 300j-15), as amended in 1996, requires the United States Environmental Protection Agency (EPA) to publish guidelines for use by water utilities in preparing a water conservation plan. At their discretion, states may require water systems to prepare a plan consistent with the guidelines as a condition of qualifying for a loan under the Drinking Water State Revolving Loan Fund (SRF).

These Water Conservation Plan Guidelines are addressed to water system planners but use of the Guidelines is not required by federal law or regulation. States decide whether or not to require water systems to file conservation plans consistent with these or any other guidelines.

Although voluntary, the Guidelines may help bring conservation into the mainstream of water utility capital facility planning. The infrastructure needs of the nation's water systems are great. Strategic use of water conservation can help extend the value and life of infrastructure assets used in both water supply and wastewater treatment, while also extending the beneficial investment of public funds through the SRF and other programs.

This document is organized into six parts. The first part of the document introduces the Guidelines and provides information to the States about their nature and possible use. A number of topics are addressed: integrating water conservation and infrastructure planning, water conservation planning criteria, guidelines and measures, State roles, and current State programs. Also discussed is a capacity-development approach for very small systems suggesting that conservation planning and implementation assistance be provided as part of a State's capacity building efforts required by SDWA. The second part of the document, written for water systems, is an overview to the organization, content, and use of the Guidelines.

The next three parts contain the water conservation plan Guidelines: Basic, Intermediate, and Advanced.

- ❑ The Basic Guidelines are designed for use by water systems serving populations of 10,000 or fewer. Some water systems, especially those serving fewer than 3,300 people, may be included in a capacity-development approach, described above, instead of having a plan requirement. Systems should check with their state primacy agency for information and guidance about capacity development.
- ❑ The Intermediate Guidelines are designed for water systems serving between 10,000 and 100,000 people.
- ❑ The Advanced Guidelines are designed for water systems serving more than 100,000 people.

The Basic Guidelines contain five simplified planning steps. The Intermediate and Advanced Guidelines follow nine planning steps (with some variations in the scope of analysis and level

of detail requested): Specify Conservation Planning Goals, Develop Water System Profile, Prepare Demand Forecast, Describe Planned Facilities, Identify Conservation Measures, Analyze Benefits and Costs, Select Measures, Integrate Resources and Modify Forecasts, and Present Implementation and Evaluation Strategy.

A three-leveled structure is presented for water conservation measures. Level 1 contains four categories of measures that are recommended for consideration, at a minimum, in the Basic Guidelines. Additional measures and categories are added for Levels 2 and 3, and recommended for consideration in the Intermediate and Advanced Guidelines, respectively. Listed below are the three levels and the categories included in each:

**Level 1 Measures**

- Universal metering
- Water accounting and loss control
- Costing and pricing
- Information and education

**Level 2 Measures**

- Water-use audits
- Retrofits
- Pressure management
- Landscape efficiency

**Level 3 Measures**

- Replacements and promotions
- Reuse and recycling
- Water-use regulation
- Integrated resource management

Six appendixes to the Guidelines provide supporting information: detailed descriptions of conservation measures (Appendix A), conservation benchmarks (Appendix B), acronyms and a glossary (Appendix C), information resources (Appendix D), funding sources (Appendix E), and state contacts (Appendix F).